

In the claims

Please replace originally filed claims with the claims indicated below.

Patent Claims

1. (currently amended) A method for cultivating microorganisms of the order *Thraustochytriales* comprising the steps of: - characterized in that the microorganisms are cultivated

cultivating the microorganisms in a fermentation medium containing CaCO₃ as an essential means for pH value stabilization, where content of CaCO₃, in said fermentation medium is 3 to 15 g/l;

adjusting the pH value of said fermentation medium being in the range of 5 to 7 prior to the start of fermentation by adding a corresponding acid or base;

isolating PUFAs from said microorganisms and/or said fermentation medium wherein the microorganisms bring forth a production of more than 10 wt% docosahexaenoic acid (DHA) per unit of weight of dry biomass.

2. (previously presented) The method according to claim 1, wherein the microorganisms bring forth a production of more than 25 wt% oil per unit of weight of dry biomass.

3. (cancelled)

4. (previously presented) The method according to claim 1, wherein the microorganisms bring forth a production of more than 1% docosapentaenoic acid (DPA) per dry biomass.

5. (previously presented) The method according to claim 1, wherein 4 g/L to 12 g/L CaCO₃ are added to the medium.

6. (previously presented) The method according to claim 1, characterized in that the medium comprises glucose, corn steep liquor, magnesium chloride, calcium chloride, calcium carbonate, sodium sulfate, ammonium sulfate and potassium hydrogen phosphate.

7. (cancelled)

8. (previously presented) The method according to claim 1, characterized in that the cultivation takes place between 10°C and 40°C.

9. (previously presented) The method according to claim 1, characterized in that the cultivation takes place for 1 to 10 days.

10. (previously presented) The method according to claim 1, characterized in that the microorganism belongs to the genus *Schizochytrium*, *Thraustochytrium* or *Ulkenia*.

11. (previously presented) The method according to claim 10, characterized in that the microorganism is *Ulkenia* sp. SAM 2179.

12. (previously presented) The method according to claim 10, characterized in that the microorganism is *Schizochytrium* sp. SR 21.

13. (currently amended) A method for cultivating microorganisms of the order *Thraustochytriales* comprising the steps of: ~~characterized in that the microorganisms are cultivated~~

cultivating the microorganisms in a culture medium comprising CaCO₃ as the exclusive means for pH value stabilization, where content of CaCO₃ in said culture medium is 3 to 15 g/l;

adjusting the pH value of said fermentation medium being in
the range of 5 to 7 prior to the start of fermentation;
isolating PUFAs from said microorganisms and/or said
fermentation medium wherein the microorganisms bring forth a
production of more than 10 wt.

14. (withdrawn) Oil having a content of at least 20 area(%) DHA, produced using a method according to claim 1 and subsequent isolation of the oil from the culture broth and/or the biomass available therein.

15. (withdrawn) Oil having a content of at least 3 area(%) DPA, produced using a method according to claim 1 and subsequent isolation of the oil from the culture broth and/or the biomass available therein.

16. (withdrawn) DHA of at least 90 % purity, produced using a method according to claim 1 and subsequent isolation of the DHA from the culture broth and/or the biomass available therein.

17. (withdrawn) DPA of at least 90 % purity, produced using a method according to claim 1 and subsequent isolation of the DPA from the culture broth and/or the biomass available therein.

18. (withdrawn) Biomass obtainable by means of a method according to claim 1 and subsequent separation of the biomass from the culture broth.

19. (withdrawn) Animal feed comprising biomass according to claim 18.

20. (withdrawn) Foodstuff for human nutrition comprising biomass according to claim 18.